- Prog 708.5

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SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: THACH BUI Examiner # : 76945 Date: 6/27/02
Art Unit: 3628 Phone Number 305 - 0063 Serial Number: 09/002,276.
Mail Box and Bldg/Room Location: CPK 5-7X12 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Clec converging billing system.

Inventors (please provide full names): Sue Crim, et. al.

Earliest Priority Filing Date: ____________________

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Combine Searches

What's his story?
Kim
Strategy.

****

STAFF USE ONLY	**Type of Search**	**Vendors and cost where applicable**
Searcher:	NA Sequence (#)	STN
Searcher Phone #:	AA Sequence (#)	Dialog
Searcher Location:	Structure (#)	Questel/Orbit
Date Searcher Picked Up:	Bibliographic	Dr.Link
Date Completed:	Litigation	Lexis/Nexis
Searcher Prep & Review Time:	Fulltext	Sequence Systems
Clerical Prep Time:	Patent Family	WWW/Internet
Online Time:	Other	Other (specify)

DIALOG(R)File 148:Gale Group Trade & Industry DB

08283166 SUPPLIER NUMBER: 17597979 (THIS IS THE FULL TEXT)

Concentra and i2 Technologies to integrate sales configuration with global supply chain management; Product configuration recognized as critical link in intelligent global supply chain management.

Business Wire, p10101141
Oct 10, 1995
LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 497 LINE COUNT: 00051

TEXT:

Corp. (Nasdaq: CTRA) a leading supplier of sales and engineering automation software announced today that it will be integrating Selling Point, Concentra's laptop-based sales configuration and proposal generation product, with i2's Rhythm 3.0 Global Supply Chain Management Solution.

Working jointly, Concentra and i2 plan to further simplify product integration as part of i2's Partners Excellence Program.

Rhythm 3.0 is a breakthrough solution to global supply chain management that views the total supply chain as a single entity and allows for concurrent planning of manufacturing and distribution in real time, taking all constraints into consideration. This holistic approach allows forward thinking manufacturers to effectively meet customer needs while realizing cost savings from improved supply chain management.

"Selling Point is the ideal complement to Rhythm because it brings the entire manufacturing enterprise to the point of sale," said Ken Sharma, senior partner at i2 Technologies. "Selling Point allows the salesperson to configure a customized or highly engineered product in real time during a face-to-face sales call. Selling Point links with Rhythm 3.0 to access "available to promise" delivery dates so salespeople can make accurate delivery commitments at the point of sale."

Selling Point uses high-level objects to model how and why a product is configured. This customer needs based approach allows salespeople to:

o Generate product configurations based on high-level customer requirements and preferences while the system automatically ensures compatibility of choices.

o Generate product configurations based on geometric constraints such as space and fit requirements.

o Generate realistic three dimensional (3D) custom product configurations.

o Generate sale proposals and quotes by automating product outputs (e.g., price estimates, custom product graphics), and linking to major wordprocessing packages and enterprise data sources.

o Generate accurate order fulfillment information (e.g., engineering drawings and Bills of Material)

Selling Point's open architecture is designed for easy integration with enterprise applications such as engineering and manufacturing systems, contact managers, opportunity managers and marketing encyclopedias. "The integration of Selling Point and Rhythm 3.0 delivers a unique tool for companies to manage product flow from customer needs assessment through final delivery," said Lawrence Rosenfeld, Concentra's CEO and chairman. "This powerful combination of technologies and supporting methodologies will enable companies to gain tremendous competitive advantage by meeting goals of customization with lower costs and faster response times."

About i2 Technologies

Founded in 1988, i2 Technologies is the leader in supply chain planning and scheduling solutions that provide improved responsiveness and customer satisfaction at the lowest possible cost. The firm is headquartered in Dallas, Texas and maintains offices across the US, Europe

and Asia.
About Concentra
Concentra Corporation is the leading provider of object-oriented sales and engineering software solutions. Using Concentra's software, market-leading companies worldwide in the aerospace, automotive, industrial equipment and construction industries are creating customer-driven product designs, product configurations and sales proposals in minutes, not months. Headquartered in Massachusetts, the company maintains offices across the US, Europe and Asia.

CONTACT: Concentra Corp, Burlington
Janet Page, 617/229-4669
or
i2 Technologies, Dallas
Melis Jones, 214/888-4112

COMPANY NAMES: Concentra Corp.--Product development; I2 Technologies Inc. --Product development
INDUSTRY CODES/NAMES: BUS Business, General
DESCRIPTORS: Computer software industry--Product development
PRODUCT/INDUSTRY NAMES: 7372204 (Engineering, Mfg Software Pkgs)
SIC CODES: 7372 Prepackaged software
TICKER SYMBOLS: CTRA
FILE SEGMENT: NW File 649
?

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TICKER SYMBOLS: CTRA
FILE SEGMENT: NW File 649
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DIALOG(R)File 148:Gale Group Trade & Industry DB

09820630 SUPPLIER NUMBER: 19848265 (THIS IS THE FULL TEXT)

Putting it all together: Has one-stop shopping arrived? (telecommunications services bundled with telecom equipment) (includes related article on bundled services currently available) (Industry Trend or Event)(Cover Story)

Flanagan, Patrick

Telecommunications, v31, n10, p34(4)
Oct, 1997
DOCUMENT TYPE: Cover Story ISSN: 0278-4831 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract
WORD COUNT: 3358 LINE COUNT: 00267

ABSTRACT: Deregulation and competition in the local and long-distance telecom markets promised 'one-stop shopping,' but such convenience is still a dream despite the fact that nearly every service provider now touts it heavily. An ideal model for one-stop shopping would be a single global provider or integrated carrier bundling all forms of voice, data, multimedia and wireless services. Numerous administrative, regulatory and other hurdles block the chance of any company being able to offer such bundles. User skepticism and resistance to change are significant problems; only 21 percent of executives in one poll favor obtaining all services from the local exchange carriers (LECs). The Telecom Act of 1996 has failed to deliver true competition, and providers cannot yet bundle services for lower prices than in the past. Administrative issues include the difficulty of presenting a single bill for multiple services. Experts are not betting on any particular business model when forecasting who will emerge as the leader in one-stop shopping.

TEXT:

It is virtually impossible to find a telecom service provider today that's not touting a "one-stop shopping" plan of one sort or another. The concept is both logical and timely: Why deal with multiple carriers, particularly now that the Telecommunications Act of 1996 will supposedly allow long-distance and local exchange carriers to get into each other's businesses? Yet, true one-stop shopping is nowhere near to becoming a reality. The road between where the industry is today and where it could and should go is a bumpy one indeed.

Before reviewing the current state of one-stop shopping for telecom services, a universal definition is needed. The ideal model is a single global provider, or an integrated carrier, that bundles all forms of services, including switched voice, TV programming, wireless, multimedia, Internet access, and highspeed data. (Some have even referred to these as "super carriers.") Also in that mix should be value-added services such as virtual voice and data networks, multiple forms of services and facilities outsourcing, and equipment management down to the desktop. The available one-stop shopping infrastructure provides traffic transport over a variety of media, including fiber optic, VSAT, digital wireless, hybrid optic coaxial cable, radio, and twisted pair transmission facilities. The reliability in terms of uptime is 99.9 percent for all types of services. Not to be forgotten is administration. Not only is unified billing a reality for all types of services, but integrated services providers deliver it in an electronic format that adds significant value to the bundle of services purchased.

One reason for the bumpy road is latent user skepticism. One might think that telecom managers would be among the strongest supporters of one-stop shopping as a way of simplifying their jobs. This isn't necessarily the case. The idea of having a single carrier for both local and long distance apparently does not sit well with members of the Communications Managers Association (CMA). In a Telecommunications, magazine survey conducted last year (September 1996, pp. 3741), 66 percent of respondents rated d& option as not important. When ranking the factors used in making a decision on selecting a carrier, only 6 percent saw a single source for local or long distance as "most important." Survey respondents gave numerous reasons for their reluctance to buy into the one-stop shopping concept. One who uses nine local exchange carriers (LECs) and experiences problems put it this way: "If they can't provide good local service, why would we buy long distance from them?" Another said, "There's just too much uncertainty about how all of this new competition is going to work out in practice."

A similar survey by Deloitte & Touche Consulting Group showed that only 21 percent of executives spending at least $5 million a year on telecommunication favored LECs as their one-stop shopping vendors. Seventy-five percent said they would go with their long-distance interexchange carrier as a single source of telecom services. Jennifer Taylor, head of communications consulting for Price Waterhouse's Entertainment, Media, and Communications Group (San Francisco), says corporations are "less concerned about one-stop shopping than they are about getting the best deal, easy service provisioning, and management information. Their buying criteria are totally different from residential consumers." In fact, according to a recent Price Waterhouse/Kenan Systems Communications Preference Survey, 55 percent of residential subscribers say they prefer to buy not only telephone, but also television services from one company. Preference for one bill for all services was even stronger, with 69 percent expressing interest. Respondents also held a much higher opinion of LECs than the telecom professionals, with more than 80 percent giving LECs an "excellent" or "good" rating.

One message emerging from both businesses and the general public to telecom providers is that as customers, they will be demanding buyers. "Certainly the companies are going to go price shopping. As competition heats up, there are going to be tremendous price choices," says Frank Slavik, a TeleChoice analyst. Many buying decisions will be made on billing procedures, with the nods going to those that offer one bill for services. "We've known people have wanted this for a long time," Slavik says. Here, the edge goes to the long-distance carriers. "The local providers have not fared as well as the long-distance companies in providing easy-to-read bills," he says.

There are firm large bumps in the road to one-stop shopping:

* Regulatory. Just how long it will take local and long-distance carriers to get into each other's businesses is anyone's guess. The recent Bell Atlantic foray into long distance is promising. But until this happens on a wider basis, true one-stop shopping is stymied.

* Administration. Legacy back office billing and reporting systems leave the existing players in need of costly upgrades. New providers have an advantage.

* User Resistance. Getting telecom managers to change their attitudes is a major marketing challenge. Conventional wisdom advises never putting all of one's eggs into one provider's basket.

YOU CALL THIS "REFORM"?

Until the regulatory bumps are smoothed out, the debate over one-stop

shopping is little more than a debate. The Telecommunications Act of 1996 is not delivering in terms of turning telecom providers into aggressive competitors able to bundle services for lower prices and improved performance. "This law has been a disaster," says Sen. John McCain (R-Ariz.). Since it was signed into law in February 1996, less than .5 percent of U.S. subscribers have gained access to competitive local service, according to the Yankee Group (Boston, Mass.). With the exception of Bell Atlantic, not one RBOC has, in the judgment of regulators, opened its calling area market to the degree that it can be permitted to compete with long-distance carriers. When the Act was passed, AT&T vowed to be a major player in local exchange service, providing such service in all 50 states and having a third of the market share in five to 10 years. Right now, it offers very limited local calling in only six states: California, Connecticut, Georgia, Illinois, Michigan, and New York.

Critics of the new law view the major telecom providers as choosing to make love, not war. This includes Nynex and Bell Atlantic, SBC Communications and Pacific Bell, and for a short time before it was aborted, AT&T and SBC. All want to join forces, not compete. The FCC is insistent that they allow rivals into their businesses before merging. The Bell Atlantic/Nynex $23 billion marriage is a good example of the complexities of creating a competitive marketer out of a monopoly. The $23.7 billion merger was held up by the FCC because it wanted guarantees, which following a year-long investigation by the U.S. Justice Department's antitrust division. Resolution of the conflict came from an array of concessions that FCC Chairman Reed Hundt called "more than compensation for the loss of Bell Atlantic as a potential competitor in the Nynex region." Included in these concessions, most of which were aimed at removing technical barriers, are agreement on how competitors would access the Bell Atlantic/Nynex infrastructure, pricing based on forward-looking costs rather than embedded costs, and methods for tracking how the merged RBOCs are treating rivals. A key component is a uniform electronic system for ordering services and switching customers.

While this action is good for one-stop shopping, at least for the 13 states in the Bell Atlantic/Nynex calling area, it does not clarify how other markets will be opened to competition. The day before this agreement was reached, an appellate court in St. Louis sharply limited the FCC's right to set terms on the pricing and connections conditions for competitors to local phone carriers. The three-judge panel said the FCC "trampled on the states' rights" to carry out key elements of the Act. This a major victory for the RBOCs and GTE because it prohibits the FCC from imposing deep discounts on network connections for their competitors. "The states are in charge of setting wholesale prices," said William Barr, the former attorney general who argued the case for GTE. The FCC's Hundt said an appeal is planned based on the ruling being inconsistent with the mandate and intent of Congress. "We cannot believe the Congress intended to have 93 district courts and 12 appeals courts and the Supreme Court deciding over the next five years what based on costs' or other language means," Hundt said.

All this legal and regulatory wrangling results in more roadblocks to integrated carriers trying to emerge as sources of one-stop shopping. The same can be said of charges by the RBOCs that the long-distance carriers are resisting entering the local business as a means of keeping them out of the long-distance business. Costs are factors, too. MCI recently announced that losses from trying to provide local phone services this year would be $800 million, or double what was previously estimated.

Open competition will become a reality, "but it will happen a lot

slower than anyone wanted," predicts Taylor of Price Waterhouse. "It's very hard for regulators to get out of the business of regulation, even though they say they haven't put up any barriers." The ultimate winners in the race to offer one-stop shopping will be the carriers who are the most aggressive in offering bundled services to their corporate customers. "They have to not violate regulations, while also not using regulations as an excuse for not being aggressive," she says.

FULFILLING THE BILLING

Another bump in the road to one-stop shopping is in the form of administrative problems -- presenting a single bill for multiple telecom services. In the back offices of the established carriers, particularly the RBOCs, there are many legacy billing system issues that will take time to resolve. Bob Kiburz, vice president of strategy and planning for Kenan Systems Corp. (Cambridge, Mass.), has seen firsthand the challenges in this area, since his company is a supplier of convergent billing systems. "Bill consolidation is a good start that accelerates a carrier's move toward one-stop shopping," he says. The newer providers, such as competitive local exchange carriers (CLECs) and cable companies, "have a real advantage (over established carriers) by not having these legacy system problems," he adds.

The administrative implications of delivering one-stop shopping go far beyond upgrading some legacy billing systems. What telecom managers really want from their providers is a single point of contact for all administrative aspects of services. In particular, this includes routine changes and upgrades in services, and strategic forecasting and reporting. The term coming into use in the industry is "customer care," which covers most back office aspects of providing and managing bundled communications services.

The demand by business customers for this single point of contact requirement will drive the upgrading of back office operations. "They want to be able to call in and talk with someone who can adjust their service, handle inquiries about billing, talk about new products, and have access to all parts of the vendor organization," says Kiburz. A key benefit in the single point of contact administration is that it greatly reduces, if not eliminates, finger pointing when something goes wrong.

Convergent billing and order management software and systems are now available to resolve the back office problems of established carriers. Still, few are making this a priority; inertia and investments in legacy systems are the primary reasons. According to Kiburz, "Dynamics unrelated to the technology are the sticking point."

This gives the CLECs and cable companies a distinct window of opportunity. Corporations are beyond the early adapter phase when it comes to doing business with CLECs such as Teleport and MFS (now part of WorldCom) as a way to drive down costs without jeopardizing operating efficiency. From a regulatory point of view, they have, the advantage of being able to offer both local exchange and long-distance service now, while the RBOCs are months -- or years -- away. GTE is in a niche, being able to offer both local and long distance, but is similar to the RBOCs in terms of back office operations.

The RBOCs are expected to take two to three years to install updated back office systems, while the CLECs have set January 1, 1998 as their deadline for having advanced billing and order management systems operational. "Even if you take away the regulatory issues (limiting access to new markets), the CLECs can have a year jump on the RBOCs," says Kiburz.

RESISTANCE TO CHANGE

The resistance of established telecom providers to modernizing their back offices is only the beginning in terms of resistance to change.

According to the Communications Managers Association survey, telecom managers are reluctant to change as well. Few will openly admit that they resist change, but many are leery of putting all their eggs into one provider's basket: 37 percent of survey respondents indicated that they would not be likely to switch local service to a long-distance carrier, while 10 percent foresaw such as a change as highly likely. The matter of ordering long distance from a local carrier generated a similar response, with 64 percent indicating they would not be likely to switch.

Carriers' lack of experience in offering competitors' services had a large impact on CMA membership. Joan McCarthy, a communications analyst for defense contractor AIL Systems (Deer Park, N.Y), said that for now she "wouldn't give them a chance without some time-in-service performance data." Another source who requested anonymity said that cellular and cable companies are "a bit scary" as local access providers. He recommended that they first prove they can deliver reliable service to the home market before approaching business users.

There is no surefire way of overcoming such entrenched lethargy in the marketplace. Competition will pressure the established telecom providers to modernize, while savvy end users will put pressure on their in-house telecom providers to add new services and consolidate those they have now. "The individual residential consumer is also a corporate consumer, particularly when working at home," says Price Waterhouse's Taylor. "When I go into Lotus Notes at night and do on-line research from home, I'm every bit wearing my corporate hat." If her carrier negatively affects her ability to do business at night, she says, "I'm a very unhappy camper." This unhappiness will be made known to her telecom department.

Telecom managers also need to be aware of all the attention that the so-far nonexistent competition is getting in business publications. "Budget is a large consideration, and any information services group want$ to show improvement in productivity for level of dollars spent, especially when their CEO is seeing all those articles about competition bringing costs down," says Taylor.

AND THE WINNER IS ...

When it comes to predicting who will emerge as the leading one-stop shopping providers, the experts are not placing any serious wagers. The consensus is that individual carriers are going to emerge; the CLECs or LECs are not expected to beat out the long-distance carriers or vice versa. Sanjay Mewada, a senior analyst with the Yankee Group, believes that a carrier's success lies in deploying a three-stage strategy: first, offer bundled services second, expand into applications tied to bundles of services: third, solve the corporation's telecom needs on an end-to-end basis.

Mewada says that setting up call centers and Web hosting are good examples of this strategy in operation. "One-stop shopping must save money in one form or another, but the value proposition can be complex," he says. An example of this would be a bundle of services that costs the same as if purchased separately, but results in internal savings through ease of administration or reduction in staff.

For both telecom managers and providers, the success of one-stop shopping will undoubtedly be based on cost savings in one form or another. "One of the low hanging fruits for reducing costs is to consolidate providers, and clearly there can be more consolidation in telecommunications," says Taylor. "When buying is centralized, as it is in a large corporation, they know better than anyone else how to squeeze vendor margins." Her advice for carriers is to "increase the value propositions to corporate customers." One-stop shopping is the first step

in creating greater value for the enterprise's telecom dollars.

Getting One-Stop Shopping Now

At the present time, the two best sources of one-stop shopping for telecom services are WorldCom and GTE. Both are relatively free of regulatory restrictions, and WorldCom is targeting corporate customers.

WorldCom owns and has in place three essential elements: its long-distance voice net, MFS's local net, and UUNet's Internet network. These are bundled as the Internet service, which includes local, long distance and Internet access over a dedicated T1 circuit, and an integrated billing plan. What is lacking is wireless. When asked about savings, WorldCom cites an Atlanta-based user getting a $.01 per minute savings on long-distance calls and a flat rate of $45.89 on each local business line, versus $48.30 from BellSouth -- a 5 percent reduction. UUNet Internet access is $545 per month (64-kbps port, 32-kbps committed information rate); that is reduced to $518 on a two-year contract. WorldCom estimates the bottom-line savings to be $500 to $700 per month. One drawback is that the company's data network services are not yet integrated into one-stop shopping billing.

GTE, long both a LEC and long-distance carrier, received a special exemption from the competitive restrictions placed on the RBOCs and long-distance carriers by the Telecommunications Act of 1996. It already has an extensive local/wireless (29 states) and long-distance (nationwide) network; the acquisition of BBN Corp. provides Internet access. Having a much stronger brand franchise than WorldCom, GTE is better positioned to become a national one-stop shopping provider. The company has announced an integrated carrier business plan, set up its own CLEC to serve business customers, and begun to build out its fiber-based infrastructure. "GTE has the short-term advantage over the RBOCs and the long-distance carriers because it is in both businesses, while they have to wait on the regulatory process to do the same," says Sanjay Mewada, a senior analyst with the Yankee Group.

The ability to offer local service is the key to one-stop shopping becoming a reality for AT&T, MCI, and Sprint. All are making efforts in local service, but WorldCom with MSF's ATM-based fiber backbone and GTE with its existing customer base are significantly ahead. Still, it will be a year or more before WorldCom has any significant competition even from GTE. The hope that cable companies and wireless companies will come on strong is now pretty much discounted. Cable providers are focused on residential customers and bypass business areas, and have only a few test customers for all types of telephony services. Wireless carriers are focused on getting digital PCS services up and running and fighting off intense competition in their core business of voice, with little interest in data applications or local loop bypass.